NARRATIVE PRODUCT II.D.

PREPARING A HOSPITAL FOR GLOBAL BUDGETING: THE CASE OF CITY HOSPITAL NO.1 IN L'VIV, UKRAINE

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Preparing a Hospital for Global Budgeting: The Case of City Hospital No.1 in L'viv, Ukraine

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ACRONYMS

ALOS	Average length of stay
CH1	City Hospital No.1
DPT	Diptheria, Pertussis, Tetanus
ENT	Ear, Nose and Throat
FSU	Former Soviet Union
FTE	Full-Time Equivalent
NIS	New Independent States
RVU	Relative Value Unit
USAID	United States Agency for International Development
ZRP	Zdrav*Reform* Program

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1.0 INTRODUCTION

In 1994, City Hospital No.1 in L'viv, Ukraine began to design and implement reforms consistent with the 1992 Basic Law of Ukraine on Health Care and in anticipation of changes in health care policy being proposed by the L'viv Oblast and City Health Administration. With the approval of the L'viv Oblast, the City Health Care Department and the L'viv City Rada Session, City Hospital No.1 was given the status of a legal entity with waivers to experiment with new methods of management and user fees, and to prepare for proposed new policies to create per capita global budgets.

This report describes the reforms in financing, organization, and management initiated by City Hospital No.1 during the 1994-1996 period, including those implemented in collaboration with the USAID Zdrav*Reform* Project. The report is addressed to health care policy makers, managers and health care professionals of countries in economic transition who are undertaking their own initiatives in health reform and who may benefit from these experiences and lessons learned. Using this case study experience, this report also attempts to distill the basic steps health managers might follow as they implement similar reforms. This presentation is not meant to be the final word on how to prepare a health institution for global budgeting, but offers guidance on the principles, concepts, methods, constraints and possibilities which exist for implementing realistic health reform.

2.0 POLICY BACKGROUND

2.1 The 1992 Basic Law for Health Care

Among other things, the 1992 Basic Law for Health Care for Ukraine calls for multiple sources of financing for health care, decentralization of state control and development of self-administration for facilities, and patient choice of doctors and health facilities. It also calls for establishing a guaranteed minimum level of medical and sanitary services to be financed by a public budget allocation on a per-capita basis, and the right of health care establishments to retain savings from budget allocations without corresponding reductions in financing for succeeding periods. Finally, the law proclaims the right of health care establishments to use supplementary funds contributed voluntarily by enterprises, establishments, organizations and individual citizens to ensure the quality of work, and the right of health care establishments to set payment rates for services in the area of health care.

2.2 Proposed Health Care Financing Reforms in L'viv

Consistent with the 1992 Basic Law for Health Care, L'viv Oblast and the L'viv City Health Administration proposed to change the method of financing hospitals. This is a fundamental and important reform, because changes in methods of financing tend to drive reforms in management, organizational, and clinical practices, as managers and health care professionals adapt to new financial risks designed to stimulate improvements

in efficiency, effectiveness and quality of care. In October 1995, the Oblast Health Administration issued a decree that would change rayon-level budgeting to per capita global budgeting effective January 1, 1996; however, implementation has been delayed. Under this decree, rayons would have substantial flexibility in how they allocate their health budget to individual facilities. This decree would also permit the implementation of user fees for those services above the oblast-guaranteed minimum package, and would eliminate oblast-level taxes on user fee revenues.

2.3 Proposed Method of Per Capita-based Global Budgeting in L'viv City

In 1994, the L'viv City Health Administration proposed a new budget policy for city health facilities that would replace line-item budgeting based on beds, bed-days and number of visits to a system of per capita-based global budgeting. The purpose of the global budget system was to allocate budgets more in line with the size and case mix of the populations being served by each facility and to give hospitals more flexibility in the use of resources within budget limits. Under the proposed system, the City Health Administration would pay each of its specialized health care facilities, such as the psychiatric center or the TB sanitorium, according to its existing budget. The remaining municipal health care funds would then be distributed among the eight city hospitals and two city polyclinics according to a per-capita formula. This formula would use age/sex relative weight statistics obtained from the former USSR.[1] These data reflect the relative costs of providing comprehensive care to various age/sex groups using an international database. For each of the ten facilities, the demographic characteristics of the populations they serve would be used to calculate the total relative budget weight points for each facility. A budget-neutral formula would then be used to determine the grivna (Ukrainian currency) value per point and ultimately the payment per capita for each of the facilities. The per-capita formula would set the basic minimum budget for each facility.

City Hospital No. 1 has taken significant steps to begin health reform, as will be seen in the next sections; however, progress has been slowed for economic and political reasons. Due to deteriorating economic conditions and dwindling public budgets for health, the city has indefinitely delayed implementation of the proposed per capita-based global budget policy. In addition, in July 1996 Ukraine adopted a new Constitution which challenges many of the reforms included in the 1992 Basic Health Care Law, including closing hospitals and implementing user fees. Fortunately, a September 1996 Decree from the Cabinet of Ministers reversed the ban on user fees. To the extent feasible, the L'viv Oblast will continue to support health care reforms already begun, but the future of some reforms may be jeopardized.

3.0 CITY HOSPITAL NO.1

Before 1994, City Hospital No.1 in L'viv, Ukraine encompassed five main institutions: a 290-bed hospital, two children's and two adults' polyclinics. It had a dual mission: to provide basic inpatient and outpatient health services to the population of

[1] Sheiman, Igor. Manual on Age-sex Adjustment Factors. Moscow. 1988.

Shevchenko district (approximately 150,000 people), and to provide certain specialized inpatient services for the entire city of L'viv (about 0.8 million population). The inpatient facility has five departments including internal medicine, gynecology, vascular surgery, allergies, and ENT, of which the latter three serve the entire city. In the past, although these five institutions operated under unified management and were financially linked, few of the services were integrated. The lack of integration between inpatient and outpatient services was clearly a response to the financial incentives created under line-item budgeting, where inpatient budgets depended on number of beds and bed-days, and outpatient budgets depended on number of visits.

Since 1994, City Hospital No.1 has closed 60 beds, established a 50-bed daybed unit, and opened two family medicine ambulatories. In addition, it has begun seven health care reforms spanning organizational, management, clinical, and economic aspects, all of which are intended to improve the efficiency, effectiveness, quality and financial base of health care services. They include:

Organizational and Clinical Reforms:

- Implementation of strategic planning, organizational and management restructuring;
- Expansion of network of family medicine outpatient centers;
- Development of clinical protocols;
- Introduction of physician rotations between inpatient and outpatient units;

Economic Reforms:

- Implementation of management accounting: decentralized budgets, cost accounting;
- Institution of salary incentive program;
- Establishment of user fees in outpatient and inpatient departments for selected services.

Each of the reforms is described in more detail in the sections that follow:

4.0 REFORMS IN MANAGEMENT

4.1 A New View of Management

4.1.1 Necessity for Management Change

As stated above, the 1992 Basic Health Care Law for Ukraine creates a more market-oriented enviroment for health care. In addition, the reduction of the government health budget and the increase in morbidity (or demand) for health care services necessitate the creation of alternative sources of revenue from the private sector to keep the health care delivery system functioning. The increase of self-paying patients and entities and the eventual introduction of national health insurance reform will increase competition among providers. In order to attract patients and insurance funds, and to manage global budgets cost-effectively, an organization must differentiate itself by offering noticeably higher-quality, patient-friendly services at reasonable costs. Health

administrators must create a self-governing, self-sustaining organization that applies new management skills to attract both government-sponsored "free-care" patients as well as patients who are able to pay directly or through insurance plans.

4.1.2 Looking at Your Patient Community Differently

Now that patients will begin to choose the facilities they like, hospitals will begin to analyze where their patients are coming from and for what services. The reasons why patients choose or do not choose a facility become very important in this new system of payment. The management is responsible for learning what services are needed and how they must be presented to sustain and increase the patient population. An **Environmental Assessment** is usually conducted for this purpose, and will be described in section 4.2 below. Once the management reviews and confirms the nature of the demand for services and the resources available to deliver them, they can rearrange (or restructure) their existing staff, equipment, supplies, medicines, and facilities to create more patient-focused services. Successful managers will not wait for additional resources to change their organization; instead, they will interpret their patients' needs and respond as soon as possible by restructuring current available resources. In a market economy the first competitor with an attractive service has the best chance to increase its volume and remain ahead of other facilities competing for the same patients.

4.1.3 Organizational and Management Restructuring

Organizational and management restructuring is a process of reallocating existing human, financial and material resources to provide accessible, affordable, quality health care to all inhabitants in a given geographic area. **Organizational restructuring** entails rearranging, adding or deleting large units or segments of a health care facility or complex to improve the delivery of health care to the target population. Examples of organizational restructuring are consolidating two or more patient services into one facility, shifting a segment of surgery services from the inpatient unit to the ambulatory polyclinic, or adding a network of family medicine clinics to a hospital ambulatory system. **Management restructuring** entails rearranging internal operations to improve the quality, efficiency and effectiveness of the delivery of patient care. Examples of management restructuring are delegating decision-making and budgeting authority and accountability to department heads, implementing patient care protocols to monitor and improve quality and efficiency of care, and introducing management accounting to control the utilization of limited resources.

4.2 Restructuring at L'viv City Hospital No.1

Box 4.1 Steps for Implementing Management Reforms under Global Budgeting

Select a Transition Team - Designate about five of your top managers who share similar philosophies and visions and who represent a broad spectrum of the services of the organization as part of the transition team.

Perform an Environmental Assessment - Try to gather and analyze as much information about the hospital, surrounding community and the political and economic forces as possible within the limited time available. Attempt to visualize changes in environmental circumstances created by the global budget allocation method. Proceed with the best assumptions possible to implement reforms even though the complete allocation system is not functioning yet.

Perform an Organizational Assessment - Identify changes in the types of services, where and on what level they should be delivered to maximize the use of resources to care for the largest possible patient population.

Perform a Management Assessment - Now is the time to define the role of each manager and appoint the best people to key positions. Delegate authority and specify the accountabilities of each manager in the organization. Agree on what tools will be used to strengthen the management team and simultaneously improve the efficiency and quality of patient services.

Develop a Transition Work Schedule - Develop a vision of the total organization for as far out in the future as possible. Share the vision with every employee. Select practical goals that will produce tangible results over the first year. Make as many employees as possible "owners" of the new structure by including them in the design. Replace "plans" with an "action schedule." Assign tasks to individuals with time periods to accomplish the tasks. Instill in all employees a desire not to wait for better times or new money. Start with improving on the use of resources you have available. Lead by example with a positive, learning attitude.

This section describes the steps and tasks required to design and implement restructuring projects in a health facility. These steps are outlined in Box 4.1 and described in more detail in the sections below.

4.2.1 Selection of the Transition Team

The Head Doctor of City Hospital No. 1 realized that the new reforms would require that she devote more of her time to health policy and legal negotiations, strategic planning and service development. Therefore, she selected a small team of top managers representing different segments of the organization to assist her in developing a new direction for the hospital. The core members consist of the Medical Director, Chief Economist, Business Planner and, when needed, the Chief of Surgery and the Chief of Family Medicine. Department head conferences are called more frequently as needed to keep them informed and to get their input on important strategic issues.

4.2.2 Environmental Assessment

The transition team's first task was to review the most recent statistical, demographic, and pertinent clinical information to identify the organization's strengths, weaknesses and to determine what opportunities and threats existed in their environment to help or hinder them in accomplishing their longer-range goals. A three-year time frame was established for setting their goals because of the rapidly changing environment. Theoretically, an environmental assessment should take a research team about three or four months to collect opinions from all segments of the community, to identify the health care needs and the hospital's ability to restructure and respond to those needs. Realistically, the transition team had limited time away from their routine duties to devote to this assessment. Therefore, they performed this function simultaneously with planning for change from bed-based budgeting to per-capita budgeting, which required the collection of similar data. Samples of the assessment are listed in Box 4.2 below:

Box 4.2 Environmental Assessment of City Hospital No.1

Strengths:

1. Progressive management team
2. Interested and informed medical staff
3. Strong city-wide medical services in ENT and Allerology
4. Strong outpatient services including a new family medicine network
5. Experience in incentive pay

Weaknesses:

1. Dramatically reduced budget allocations in the last two years
2. Outdated equipment
3. Hospital is smaller and has narrower range of services than others in the city.
4. No funds for supplies and medicines
5. No patient transportation service

Opportunities (for the next three years)

1. Expand hospital referral base through family medicine network
2. Expand preventive medicine programs with local enterprises
3. Influence important legislation by demonstrating efficiencies of primary care
4. Improve the health status of the population through early diagnosis and treatment through polyclinics and family medicine clinics
5. Improve services to all patients by reinvesting the user fee revenues to purchase effective, quality medicines and supplies.

Threats (for the next three years)

1. Unrealistic and outdated health care laws and regulations
2. Continued low level of funding from the national budget without authority to obtain alternative sources of revenue
3. The implementation of a per-capita budget system without a well defined inter-facility payment system in place
4. Reduction of humanitarian aid
5. A declining economy

Global budgeting provides the hospital management team an opportunity to restructure their organization in accordance with an allocation amount announced (theoretically) before the fiscal period begins. As demonstrated in Chart 4.1 below, the lower the cost levels of care that the patient can be diagnosed and treated, the lower the expenses will be generated in the complex. The global budget amount is allocated as a lump sum at the beginning of each month. This amount, once it is determined and allocated to the hospital, can be kept and distributed within the hospital according to its own priorities If the hospital does not spend all of the funds due to lowering its expenses, it is allowed to keep and apply the savings to equipment, medicines, supplies, and any other priority needs that would benefit all patients. After analyzing the average cost of a surgical procedure at L'viv City Hospital No.1 it was discovered that the procedure performed in the polyclinic was about half the cost of the same procedure performed in the hospital.

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As can be seen in Chart 4.2 below, the actual budget allocation is much smaller than the theoretical model shown in Chart 4.1 above. The usual amount has been averaging 35-40 percent of the budget requests from the hospital for the past two years. In 1996, the allocation was 18 percent and has remained at the same level throughout the year. Therefore, restructuring patient services to diagnose and treat patients at the most economical level has resulted only in reducing debt, which has left no savings for purchasing needed supplies. As a result, the hospital implemented user fees to replace the revenue that had been lost from lower budget allocations.

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4.2.3 Organizational Assessment

At the same time that the transition team was analyzing the costs to determine appropriate user fees to recover at least their variable costs, they were studying their present service and facility configuration for changes that might be necessary to attract and care for a larger number of patients in the polyclinic, family medicine clinic and at home.

One of the major tools they used was a strategic map, which is presented as Chart 4.3 below. Because the external forces change rapidly in a market economy, the traditional five-year plan becomes outdated shortly after it is written. Therefore, the transition team uses strategic mapping as a means to graphically amend strategy as the conditions around them dictate. The boundaries of the map are drawn to include the official district of the City of L'viv that is assigned to the hospital to render patient care to its inhabitants.

The first entries on the map are the locations of the present facilities operated by L'viv City Hospital No. 1. The next entry is locating all other health care facilities in the district. That gives the team a total picture of the supply of patient care services and where potential competitors may be positioned to attract patients away from their facilities. The team had never considered some of the other facilities as competitors because the user fee/patient choice concepts were new. These two new factors create competition once the self-payment mechanism is utilized by all the providers in the districts. The third entries posted to the map are sources of patients or demand points of referral. One icon shown is the industrial enterprise with contracts to care for its employees. Another icon symbolizes the housing projects and high-density neighborhoods.

The team uses the map to analyze the best facility configuration and the best level of care to facilitate access to all the inhabitants and employees in the district. This document is presented to doctors, public officials and surveyors to gain their understanding and obtain their suggestions on how to improve accessibility. Tracking and tracing referral patterns helps the team visualize ideal sites for new community, family medicine clinics, which are indicated by a distinctive icon on the map. More advanced marketing concepts have been developed by referring to this map. For example, a neighboring facility may be a major competitor for general surgical and medical patients, but a major supplier of allergy referrals. Therefore, the hospital’s strategy must include cooperation as well as competition simultaneously with the same facility.

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Other tools for organizational restructuring have been the morbidity and mortality rates with associated trend analyses to determine the appropriate service mix. Age and sex distribution charts are good indicators for type, level and location of services also. Cost analysis of services has become very important with the introduction of user fees. Some of the specialty services that were supported previously by the central budget do not produce a high enough volume to cover the cost under the new global budgeting methodology. Therefore, a shift to lower-cost ambulatory surgical procedures is a strategy that will drive the expansion of same-day surgical units in the polyclinics.

4.2.4 Operational and Management Assessment

Once the team identified the facilities and services that needed reorganizing, they performed an internal study to determine the management staff and relationships needed to be restructured to respond rapidly and efficiently to the needs of the patients.

Chart 4.4 was the primary instrument used to identify top managers and functions necessary for effective operations. In addition to the traditional functions of an organization chart, i.e. position structure and chain of command, the team used this chart to define lines of communication and reporting responsibility. The arrows pointing down signify a delegation of authority from the Head Doctor to the managers. The corresponding accountability from the managers to the Head Doctor is indicated by the arrows pointing up. Each oval represents a major function in the hospital. A responsible manager was designated to be responsible for each function or department. One adjustment that was made was that the nursing function was identified as a major management area and responsibilities of the chief accountant were clarified.

By implementing this structure, each manager is authorized to make certain decisions without approval by the Head Doctor. Therefore, when circumstances arise needing quick decisions, patient care will not be delayed due to a time-consuming decision-making process. Usually the person closest to the problem is the most informed and can find the best solution. Rapid response contributes to the quality and efficiency of patient care.

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After the internal management structure was defined, the team charted the process of decentralized decision making and its reciprocal action of accountability. In chart 4.5, the arrows pointing down from the Ministry of Health to the Chief Doctor signify authority delegated to the facility, such as global budgeting. The arrows pointing to the Ministry reflect the Chief Doctor's responsibility to account for the funds expended in the global budget that she has been allowed to allocate internally according to her own priorities. The arrows pointing away from the Chief Doctor indicate delegation of authority to make decisions. The arrows pointing toward the department heads indicate to whom subordinates are accountable.

Once the team plotted the authority and accountability paths in Chart 4.5 another aspect of management structuring was revealed. A proper balance of strength must be maintained between the support, control and clinical or mission segments of the internal structure. This chart divides managerial areas into three sectors. Each is a critical element to the other for survival. If any are significantly stronger or weaker than the other the management structure becomes unbalanced and effectiveness of the total organization begins to falter. When global budgets are cut, managers in the control sector tend to make arbitrary decisions about where the internal cuts will be made without input from the other management sectors. Another common tendency is to drastically cut funds to all support services to save the clinical services. During 1996, the transition team is facing this problem with supplies, medicines and food items being cut from the central budget. With this balancing concept in mind, they have placed these items on top priority to be purchased with user fee and humanitarian aid funds. This dilemma has emphasized to the team the importance of decentralized budget authority to the departments. Unfortunately, this feature of global budgeting has not been implemented. Practicing this management principle with user fee revenue prepares internal decision makers to act responsibly when decentralized decision making is implemented.

Once the global budget had been allocated by the Oblast and Municipal Health Administrations, the transition team realized that each departmental allocation had to be accompanied by an educational process for the department heads that would enable them to assume their responsibilities with a proper balance of efficiency and quality improvement. The first charge by the administrative transition team to the departments was to find efficiencies (through reduced expenses) and identify additional sources of revenues (through user fees). This has become a continuous process or way of thinking as the employee performs daily duties. However, **cost efficiency** is not the only responsibility. **Cost effectiveness** is the ultimate goal of the organization. **"Cost effectiveness is the achievement of a quality outcome that satisfies the patient's service expectations by efficiently applying the minimum amount of resources. It is the optimum balance between quality and efficiency which blends the goals of the physician and the economist."**[2] Therefore, each department grouping designated on

[2] Gaucher and Coffey. *Transforming Health Care Organizations.* Jossy-Bass Publisher. 1990. p. 189.

chart 4.5 is charged with providing cost effective services, which means efficiently rendered without sacrificing quality.

When the hospital started to charge user fees, patients responded with very little question or resistance. That is because the departments that started charging fees had prepared their services to be convenient and consistent with the patients' expectations of the services. The hospital staff had stopped asking themselves "what do we think the patient needs?" and replaced that question with "what does the patient expect of our services?" Designing patient care services around patient expectations and opinions of the services generates **"patient attraction"** which is the major motivating force for **patient choice.** Therefore, Chart 4.5 portrays the area managers placing themselves in the position of the patient to provide services as accessible, convenient, affordable, and effective as possible **as seen by the patient.**

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4.3 Management Assessment Tools Used

4.3.1 Self-Evaluation Instrument—Licensing and Accreditation Guides

Chart 4.5 above shows quality and cost effective service managers in every functional area. In order for the Head Physician and the transition team to expect the managers to produce quality and cost effective services they had to give them performance guidelines or "benchmarks" to move toward and measure their progress. Previously, doctors on the staff were required by law to adhere rigidly to clinical practice "norms" or standards. Frequently, patients diagnosed under these norms did not need the full range of services specified for treatment. Therefore, unnecessary costs were generated in expensive specialty care to meet the legal requirements of the practice norms that had been established in a previous era of medicine in the former Soviet Union. Recently, the Ukraine Ministry of Health has recognized the need to revise these norms into a set of guidelines that can be adapted to the care needs of the patient and adjusted to both good clinical and management practices in the various regions of Ukraine. The transition team has been using a draft of this accreditation guide, that was developed in collaboration with Zdrav*Reform,* as an internal quality assessment instrument for every area in the hospital complex. It will become a self-assessment tool for every manager to match present performance with the suggested national benchmarks in order to assure the efficient provision of quality services and to prepare for the new licensing and accreditation law to be enacted in the near future in Ukraine. The new manual describes **licensing** as a "process of assessing a health care provider with a set of standards specifying the minimum requirements to assure its functionality. Licensing standards specify the equipment, staff and physical facilities absolutely essential for delivering medical care. If a facility meets these minimum standards, it is granted a license

representing the government's permission to provide care to patients. A facility not meeting these requirements cannot provide safe or effective patient care and may not remain open. Licensing is mandatory**."**

The manual describes **accreditation** as "the process of evaluating health facilities according to a set of standards that describe activities and structures directly contributing to desirable patient outcomes. These standards provide guidance on achieving the highest possible level of care quality given available resources. When a hospital meets or exceeds these quality standards, it earns the honor of accreditation. Accreditation is usually voluntary."

The accreditation manual is divided into three sections of patient care guidelines and six sections of management guidelines. The last section is devoted to quality assessment and improvement. The transition team has assigned the department managers a review of the management sections for compliance first to give them a clear perception of their managerial responsibilities. The clinical responsibilities are better known to the physician department managers, but now that they have been delegated the authority to manage their human, financial and material resources they must be cognizant of the reciprocating managerial accountabilities that are inherent in this authority. The accreditation guidelines give the managers specific check-list items by which they can determine if their department or clinical service complies, or does not comply and needs improvement over a specified period of time in which to comply.

4.3.2 Patient Information System

City Hospital No. 1 is developing a patient information system to monitor the revenue performance of its user fees. It includes the names of the patient and treating physician, the type and site of the service, and the payment if appropriate. In the near future the department managers will have the capability of analyzing this data base to measure productivity, prioritize and control financial recourses, determine patient referral patterns, control supply and equipment inventory, and conduct patient and medical education activities. This management assessment tool is described in more detail in section 10 of this report.

4.3.3 Patient Satisfaction Surveys

The family medicine clinics have recently completed a patient satisfaction survey that was designed to be used by the doctors and nurses as a continuous monitoring tool for service quality improvement. The initial survey revealed that patients prefer their patient care services provided by one physician who is responsible for caring for the whole family, who is accessible for advice by telephone 24 hours a day, whose clinic is separate from the hospital and in the neighborhood within walking distance from home, and who can attend the patient frequently for early diagnosis and preventive care.

4.3.4 Clinical Care Pathways

Clinical care pathways are management instruments that enable doctors and nurses to simultaneously control use of resources and improve quality of service. City Hospital No. 1 has designed and implemented clinical pathways for 25 of the highest-volume diagnoses. Through the combined efforts of primary physicians and specialty physicians in the polyclinics and hospital, the pathways map the course of diagnosis and treatment of a patient from the primary clinic through the polyclinic and hospital back through the post-discharge course to the primary physician. Analysis of this mapping procedure has revealed duplication of testing and medications, unnecessary days in the hospital waiting for discharge, outdated and ineffective treatment and medications, and the need for patients and families to be educated and part of the care process in order to prevent costly repetition of disease. This management assessment tool is described in more detail in section 6 below.

4.3.5 Departmental Budgets

The first management accounting tool introduced by the transition team was the decentralized, departmental budget. It revealed to the managers for the first time a current and historic account of the financial resources allocated to their department. The managers discovered that only 28 percent of the total budget was used for inpatient care. Although delegation of authority for control of departmental budgets has not been possible to date because of the diminished government health budget allocations, department managers will be accountable for the revenue and expense of user fees and private enterprise funds that will replace the government revenues that have been lost. This management tool is described in more detail in section 7 below. It is presented in this section as a key assessment tool for financial management performance.

4.4 Transition Work Schedule

4.4.1 Statements of Corporate Direction

After the organizational and managerial assessments were completed, the transition team focused on developing strategies to design and implement the reforms. The first step was to define the purpose, goals and values of the organization. These statements are the foundation of the strategies and all the activities of the hospital in the future. They include statements of vision, goals, objectives, values, and principles that each employee should be aware of and follow. The key statement is the vision, which the Head Physician has articulated below:

In three years L'viv City Hospital No. 1 will be the health care provider of choice for all citizens and families of Shevchenko Rayon through the establishment of conveniently located, high-quality primary and polyclinics supported by the effective, friendly services of our modern general hospital. By the beginning of the twenty-first century, our City Hospital No. 1 will have evolved into the Prince Leo Health Complex No.1, offering a continuum of quality health care to all ages of citizens in Shevchenko and surrounding

rayons through an integrated medical referral network of family medicine and specialty services considered to be the undisputed first choice of quality care.

The goal and value statements were placed in the same document for distribution and explanation to all members of the organization.

4.4.2 Strategic "Thinking" Cycle

Because of the rapid changes in the environment of the hospital, the traditional five-year written plans have been replaced with very brief strategy statements that can be easily changed as unanticipated forces and events occur. Generally, the transition team meets on demand and follows the steps outlined in Chart 4.6. The commitment and vision/mission statements usually remain stable over time. The environmental assessment, quality improvement, and financial budgeting have been changing frequently this year and require constant attention. The education of the public, patients, and employees has suffered because of the concentration on economic survival. However, patient education strategies have been implemented in the family medicine clinics. Hospital goals have not been established this year because of the uncertainties of national health policies dealing with reform activities. Based on the vision and organizational assessment, the team is constantly working on implementing the family medicine network, finding alternative revenue sources, and improving the information system. During times of uncertainty and turmoil the survivors don't wait for conditions to improve. They start with what they have and get better by working around the obstacles.

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4.4.3 Specialty Mix

City Hospital No. 1 has five major inpatient clinical services: medicine, surgery, allergy, ENT, and gynecology. Its inpatient capacity has been reduced to 240 beds. To survive as a hospital in a per-capita-payment, market economy the team knows that it must establish patient service niches which will generate low-cost, short-stay admissions. Specialties such as cardiac surgery will be concentrated at the larger hospitals in the future. Specialties such as eye surgery, oral surgery, and plastic surgery, which are well received by patients in a quiet, patient-oriented atmosphere, would fit well as niche services at City Hospital No. 1.

4.4.4 Polyclinic Focus and Rotation

With increasing emphasis on ambulatory care, more surgical cases will be performed in the polyclinic. Eventually, the hub of specialty diagnosis and treatment will center in the polyclinic, with the hospital being used more for short-stay and day-stay cases. Currently, the rotation of surgeons between the hospital and the polyclinic is in preparation for such a configuration in the future. In all probability, the per-capita budget allocation will continue to be a prospective, guaranteed amount from the central

government but it will not be substantial enough to cover the variable and fixed costs of the health complex. Therefore, as physicians refer patients further down the service cost spectrum faster, the organization will be able to break even and start to generate revenues from sources other than the government budget that can be applied to needed supplies, equipment, and salary incentives.

4.4.5 Family Medicine Network

As a result of the strategic mapping and other assessment tools, the transition team created a clearer vision of where the expansion of the new organizational structure should occur. Three additional family medicine clinics will be started in the next three years in population centers that were identified on the map. A fourth walk-in center adjacent to L'viv City Emergency Hospital was proposed to relieve the waiting time and ambulance load of the emergency department of that hospital. However, further joint planning with the hospital administration of the two hospitals and the L'viv City Health Administration is necessary to gain acceptance of this new concept in Ukraine. To link the family medicine centers with the polyclinics for patient referral tracking and clinical/financial information, computers will be installed and operating in all the facilities by the end of this year. Patient profiles and associated financial data will be loaded into the computers for analysis of patient origin and migration trends, disease burden trending, resource utilization, and referral patterns.

4.4.6 Pharmacy Self-managed Services

The largest non-labor expense category in the health budget of any facility is the chapter on drugs. In 1996 the government pharmaceutical company was dissolved in favor of separate entities supervised under the jurisdiction of the Oblast Health Administrators. The L'viv Oblast Health Administrator is considering the alternative of health facility legal enterprises to assume all managerial responsibilities for pharmacies located on their premises (or satellite/family medicine units located in target communities). The goal of such ventures is to procure and distribute effective medicines through primary care physicians who are in the best position to monitor and control the use of drugs by their patients. During 1996, the ability of the government to pay for all the drugs on the free drug list has deteriorated dramatically. The free drug list has been reduced drastically and purchase of drugs by patients to be used in the hospital is becoming common practice. This condition presents an opportunity for the hospital to negotiate with pharmaceutical distributors for drugs on consignment. Large distributors such as Biocon are starting to supply smaller pharmacies with drugs from large international suppliers with the payment due when the inventory is sold. This would be the first step to reaching the eventual goal of the hospital operating its own pharmacy network. This would provide a significant alternative revenue source to the State budget and simultaneously increase the quality of health care. A drug tracking system is planned to be added to the patient information system, which is to be upgraded at each polyclinic and primary care clinic in November 1996. Two of the portable computers in the Zdrav*Reform* offices have CD-Rom disk drives, which are being used to search for

updated information on pharmacopoeias. This information will be submitted to the hospital pharmacy committee.

5.0 ROTATIONAL SERVICES

In early 1995, the ENT inpatient and outpatient departments of Adult Polyclinic No. 2 began an experiment to improve integration of inpatient and outpatient services. Under this experiment, both departments have been placed under one chief doctor. Polyclinic physicians continue to assist with the care of their patients who have been referred for inpatient surgery. In previous times, polyclinic doctors could not work in the hospital, nor could hospital doctors work in the polyclinic.

City Hospital No. 1 expects numerous benefits from this integration of services. First, rotational services will improve the skills of polyclinic physicians because they will assist in providing the more advanced treatments that are performed at the hospital. Second, performing simple ENT surgeries or general surgeries in the polyclinic rather than in the hospital will save costs. Third, rotational services will encourage the district population to use City Hospital No. 1 for the continuum of care, increasing its competitive advantage. Finally, this integration of services can produce cost savings by eliminating the number of patients who receive duplicate diagnostic tests.

6.0 FAMILY MEDICINE OUTPATIENT NETWORKS

Under a global budget payment system and any other payment system that stimulates productivity, a well-recognized means of improving efficiency of health care delivery is to treat patients in more cost-effective settings. In Ukraine, this means reducing ALOS and making greater use of primary care physicians instead of specialists. However, as of 1995 in Ukraine, the establishment of family medicine outpatient networks was in its infancy. This was due partly to the lack of family practice-trained physicians and partly to the lack of a legal framework establishing family medicine as an official specialty with an official salary structure. As an interim measure while more elaborate curricula are being developed, L'viv Medical University runs a short four-month course that retrains specialists as family medicine practitioners, followed by an internship program.

The major purpose of family medicine activities at City Hospital No. 1 is to provide quality health care services as close as possible to the population. As part of a strategic plan to transform its district health services into a network of five family medicine ambulatories and to transform polyclinics into more sophisticated diagnostic centers, City Hospital No. 1 regularly enrolls some of its internists and pediatricians in the L'viv Medical University short course training program. The hospital has prepared a plan for all pediatricians and internists to take family medicine courses. Newly trained physicians have also requested to continue on-the-job training at polyclinics and during consultants' visits to the ambulatory centers. Before the opening of the family medicine centers, the population was widely informed through newspapers, radio, and television about family medicine principles. A population survey was also undertaken and results

showed that the population was willing to experiment with more accessible family medicine physicians.

In early 1995, City Hospital No. 1 launched its first family medicine ambulatory in a more rural district of the city that has poor transportation links with the downtown area. It is housed not far from several industrial enterprises and, in fact, is located in an enterprise building. In the center of the district is a concrete plant with 540 employees, 26 percent of whom work under hazardous conditions. In addition, the facility provides care for the 10,000 population. It has six family physicians, six family nurses, a lab worker, an obstetrician, a procedure nurse, a receptionist, and a medical aid, and each physician provides care for 518 families or 1,500 people from birth to death.

The facility includes two family physician rooms, a procedure room, lab, pre-physician examination room, physiotherapeutic and examination rooms, and a pharmaceutical kiosk. It is supported by a computerized information system that records basic demographic and service utilization statistics for the entire 10,000 population. This information system generates summaries of physician profiles, patient service histories, and polyclinic/hospital referral patterns.

In June 1996, City Hospital No. 1 opened its second family medicine ambulatory in a ground-floor apartment in a large apartment building complex. It is similar to the first ambulatory center, except that it also has a dentist's room and a day-stay department with three beds.

The family medicine ambulatories operate under an agreement with the hospital administration, where quality standards and general expectations are set out. Family physicians and nurses use a salary incentive system based on intensity points and quality indicators. This system emphasizes the value of 'active' home calls, home visits, examinations of pregnant women, immunizations, ENT and ophthalmic manipulations. The average physician's salary is 1.6 times higher than a regular full-time-equivalent. The average nurse's salary is 1.4 times higher than a regular full-time-equivalent. When awarding bonus pay, preventive care activities and their results are taken into consideration.

After one year of work at the family medicine center, statistics show an increase in the productivity of family medicine practitioners. Since last year, the number of patients seen by the family physician has increased 1.5 times, the number of phone calls served has doubled, and 1,674 patients were provided with emergency care. On weekends and holidays, the ambulance services had no home calls, because family medicine practitioners responded to these urgent calls instead. Family medicine doctors' rate of conducting early pregnancy exams (83 percent) is higher than the rate in the hospital (77 percent). Initial estimates of hospitalization rates show a reduced rate in the family medicine center (1.2 percent) compared with the polyclinic (3.6 percent). Also, a family physician refers his patients to other specialists six times less than a district internist does.

Experience to date shows that family physicians find ob/gyn aspects of medical care the most difficult to master in their new roles. They also provide family planning assistance.

City Hospital No. 1's early successes in family medicine can be attributable to the support for family medicine from the L'viv Oblast and City Health Administrations, to the strategic decision of the chief doctor to experiment with new ways to provide efficient and effective health care, and to the dedication of family medicine health care staff to persevere through numerous start-up obstacles.

7.0 CLINICAL PATHWAYS

Clinical pathways map the course of diagnosis and treatment of a patient from the primary clinic through the polyclinic and hospital back through the post-discharge course to the primary physician. In table 7.1, the time period for treatment is shown across the columns, where polyclinic pre-admission visits, hospital stays, and post-hospital visits and follow-up care are listed. Each row specifies a different aspect of patient treatment, including initial assessment, vital signs, lab tests, x-ray/EKG tests, medications, treatment and so on. For each type of activity related to patient care, a clinical pathway tracks what should be done each visit or day of the patient stay. Clinical pathways are used for multiple purposes. These are discussed in the sections below.

7.1 Multipurpose Management Instrument

L'viv City Hospital No. 1 is using the clinical pathway mapping technique for the following purposes:

7.1.1 Organizer for Continuum of Care

The family medicine physician maps the primary care events and identifies the referral thresholds to the polyclinic specialist. The same process is used to plot the admission criteria to the hospital and discharge indicators back to the polyclinic and primary clinics. Duplication of tests and diagnostic procedures have been avoided by these multilevel reviews. A better appreciation of the physicians' capabilities on each level of care has been obtained as a result of these protocol planning sessions.

7.1.2 Quality/Efficiency Balance

The physicians are analyzing the effectiveness and redundancy of diagnostic tests and therapeutic medications. The protocol review keeps them aware of the costs of the tests and drugs they order. Although the global budget system has not been implemented down to the department level, physicians are becoming educated about the potential efficiencies that can be realized without compromising quality. They are tied by law to the old Soviet practice norms, but the new protocols have given them an opportunity to establish their own internal standards, which they will be able to defend to any external reviewer when the time comes. Areas of quality that are being reviewed and challenged

by the physicians are patient days with no therapeutic activity, referrals to specialists because of traditional norms, and laboratory tests and medications that are proving to be ineffective and outdated.

7.1.3 Utilization Review Tool

Days in the hospital are being challenged by the team of primary and specialty physicians. They have focused on the first day after admission to check for tests and preparations that could be performed in the polyclinics before admission. Also reviewed are days patients wait in the hospital for x-rays and laboratory tests because the equipment is being repaired or does not have the capacity to handle all the tests requested at one time. In non-emergency cases most admissions can be delayed or eliminated by testing these patients at the polyclinic sites. Other focus review areas are the last days of the patients' stays. Many of these days are convalescent in nature and include no diagnostic or therapeutic activities. Discharge to home with follow-up nurse visits or patient visits to the polyclinic is the appropriate protocol to increase efficient utilization of resources while improving quality of care.

Table 7.1 Example of Clinical Pathway

Hospital Name Diagnostic Category										Patient's Name Patient Information				
	Pre-admission visits			Hospital Stay					post-hospital visit			follow-up		
Action	V 1	V2	V3	H1	H2	H3	H4	-H9	P1	P2	P3	F1	F2	F3
Consultant														
Assess-ments														
Vital Signs														
Lab Tests														
X-Rays/EKG														
Medica-tions/IVs														
Treatment Procedure														
Nutrition, Diet,														

	V1	V2	V3	H1	H2	H3	H4-	-H9	P1	P2	P3	F1	F2	F3
Patient Participative Activities														
Psychosocial Needs														
Teaching: *** medications** ***food/drug interaction** ***diet** ***activity** ***infection control** ***other**														
Continuous-care plan ***hospital. admission** ***consults** ***office visit** ***home care** ***medicines** ***dressings** ***procedures** ***examinations** ***tests** ***other**														

7.1 4 Communication Tool

Physicians are finding that they have a clear and comprehensive graphic display of a typical course of treatment by diagnosis to discuss with fellow practitioners and nurses to gain their understanding and consultation on actual cases. Nurses have expressed a desire to communicate day-to-day variances of patient care that are valuable contributions to patient care rendered by the physician. Another potential use of the protocol is to produce a two-way communication with the patient. Patient participation in nutrition, home medication, and post-discharge activities will become another quality tool in the future.

7.1.5 Educational Tool

As the variance records are employed, physicians and nurses will begin to look at patterns emerging that will be good indicators of educational needs. Some infections could be associated to one practitioner who might need to review aseptic techniques. Others might reveal continuous outcomes that are substandard to the accepted norms. The clinical protocol is an excellent self-evaluation tool.

7.1.6 Strategic Planning Tool

The transition team has recognized trends in practice precipitated by the protocol analyses that have significant effects on the plans to restructure the organization. For example, a review of the highest-volume surgical procedures produced a decline of 20percent in patient days. A similar reduction in other clinical departments could change the planned use of the hospital facility and expansion plans for the primary and polyclinics.

7.1.7 Augments Patient Record

Although the protocol has never been intended as a substitute for the patient record, it can produce valuable information about the patient in the variance record. This and other daily log notes on questions raised in the routine protocol review may be worth preserving in the record.

7.2 Protocol Design

The sample graphic display below is a generic template that was submitted to the transition team and department chiefs to adapt according to the needs of L'viv City Hospital No. 1 The generic elements of the protocol are described below.

7.2.1 Clinical Protocols and Patient Information

The left side of the heading can be used to develop a typical clinical protocol. It provides typical information on the hospital and diagnostic information about the "template" version of any diagnosis. The right side contains the patient information when the template is adapted to be used for actual cases.

7.2.2 Levels of Care

The vertical columns represent visits or days at various levels in the continuum of care of a patient with a designated diagnosis. In the example below, V 1-3 represents visits in a primary clinic. The next columns, H 1-9, signify hospital days. The next columns, P 1 and 2, are for polyclinic visits, and the last columns signify feldsher visits.

7.2.3 Actions

The action column includes the typical services a patient could receive in any primary clinic, polyclinic or hospital in Ukraine. The physician reviewers enter into the appropriate visit or day columns the activities that should occur in a typical course of treatment for a designated diagnosis. For example, they would record what typical laboratory tests, x-rays, medications and treatments would be ordered for a typical patient with diabetes when visiting a primary clinic or polyclinic, both before being admitted and

after being discharged from a hospital. The protocol also includes the posting of the same activities for each day the patient is in the hospital.

7.2.4 Clinical Activities

The first page of the template protocol displays all the activities performed by the doctor or nurse in a clinic setting. Usually, the patient is a passive subject during these activities and does not contribute to their performance.

7.2.5 Patient Participative Activities

The second page of the template protocol displayed above lists activities that should include patient and family participation.

- **Psycho-social Needs -** The patient may need the assistance of a psychiatrist in learning how to cope with a disease. Other problems at home or pressure at work may be contributing to the disease, for which the patient needs counseling.

- **Teaching -** The patient and family need to participate in instruction from the doctor on nutrition, medications and infection control when returning home.

- **Continuous Care Plan -** This section is maintained by the patient and presented to the practitioner at the point of admission or registration at each level of care. The doctor, nurse, patient, and family develop plans on the day of admission for a course of treatment after discharge from the hospital.

7.3 Variance Tracking

The next step the protocol committee begins is the matching of the template protocols of a typical course of treatment with actual patient cases. An example of a variance is an unanticipated event such as an infection or drug reaction that would alter the length and course of treatment. The form used is a companion piece to the clinical protocol. The standard format is shown below.

7.4 Variance Trending and Analysis

Over a period of six months to a year patterns can be detected such as a series of infections that can be traced to an operating room or a staff member who is an unsuspecting carrier of a microscopic pathogen. Some trends can be used as constructive indicators of additional training needed for an operator or practitioner to update skills to maintain accepted outcomes.

Table 7.2 Variance Tracking Record

VARIANCE TRACKING RECORD					
Date	Time	Variance (what)	Source (why)	Action Taken	Responsible Recorder

8.0 MANAGEMENT ACCOUNTING TOOLS

With prospects for increased financial autonomy, health care facilities are looking to strengthen their management accounting systems to ensure that resources are used efficiently, while maintaining an acceptable quality of care. At City Hospital No. 1, priority was given to two management accounting systems:

- Decentralized budgets by major subunit and by department, with corresponding budget performance reports;
- Cost management, including improved cost accounting and monitoring actual costs.

8.1 Decentralized Budgets and Budget Performance Reports

Department-level budgeting is a necessary step for decentralizing management authority. In many countries, those mid-level managers directly responsible for implementing a specified activity or program are usually the most knowledgeable about identifying ways to allocate resources more efficiently. Often, better plans are made and achieved when department managers become fully involved in the budget planning of their department.

The budgeting process requires that managers plan ahead and consider alternative resource needs. It improves organizational communication, encouraging department managers to communicate to senior medical and administrative managers their approaches for improving their services. The budgeting process also provides a basis for

evaluating departmental performance. In addition, a formal and transparent budget process encourages fairness in apportioning budget allocations to various departments.

In July 1995, City Hospital No. 1's senior management made a commitment to institute a more decentralized budgeting system. This meant breaking down its global budget into budgets for each of the eight main subunits, and then within each major subunit to the department level. A sample of results is given in Table 8.1 for the whole health facility complex, and in Table 8.2 for the inpatient unit and Adult Polyclinic No. 2.

The basic steps being followed by City Hospital No. 1 are given in Box 8.1 below. The importance of the **first step**, identifying the responsibility cost centers of the health facility, should not be underestimated. This determines which managers have budget and cost responsibilities. In the **second step**, economists should realize that they can simplify cost accounting allocation methods while still maintaining important accuracy in department-level budget estimates. Table 8.3 gives suggestions for some allocation bases that have been used. The **third step** has proven particularly challenging for City Hospital No. 1 during the economic crisis, when many budget articles are unfunded or underfunded. One approach, which has also been used in Zhovkva Rayon, has been to pay particular attention to department budgets for medicines. Rather than allocating medicines in a haphazard way based on random requests, budget allocations for medicines are being managed by creating budget limits for each department. This ensures that medicines are allocated more fairly, as well as according to medical need.

Box 8.1 Summary of Steps for Breaking Down and Decentralizing Budgets at City Hospital No. 1

1. *Define Organizational Responsibility:* Economists and senior managers clearly identify each unit of responsibility including departments, paraclinics, and other administrative/overhead units.
2. *Calculate Departmental Budgets:* Using basic cost accounting techniques, the budget for each responsibility area identified in item '1' is calculated for every line item in the budget. City Hospital No. 1 is also developing department-level revenue budgets associated with user fees. Eventually, department-level expense and revenue budgets will be linked.
3. *Defining Budget Responsibility.* Identify those line items within the department-level budget that are controllable by the department head and those which cannot be controlled by the department head.
4. *Maintaining Budget Accountability Through Budget Performance Reporting:* Identify clinical, quality, and workload indicators that can be used to monitor how well the department head is using his/her budget.
5. *Decentralizing Budget Responsibility:* After systems of responsibility and accountability have been agreed upon and methods of budget calculation are approved, identify those managers who are able and willing to assume more budget responsibility.
6. *Computerization:* Computerize management accounting systems by training economists in decision-making information system software (e.g. spreadsheets) and developing database software for standardized components of analysis.

The **fourth** step is important to complete before head doctors of major subunits or departments within those subunits assume more responsibility for managing their budgets. Actual budgets should be compared with actual expenses. Actual budgets should also be linked to performance indicators that measure volume of activity (overall and by type of service), productivity of inputs (especially labor), costs per service, and quality of care. City Hospital No. 1 is in the process of designing sample budget performance reports, by month and by quarter, for selected departments including inpatient and outpatient surgery. The items included in the report, which are shown in Table 8.4, are tailored to the special conditions of the departments. For example, City Hospital No. 1 uses a system of 'intensity points' to monitor and stimulate staff productivity. Graphical presentations are helpful because they show trends and patterns more clearly. Because of the economic instability and difficult budget conditions, City Hospital No. 1 has not yet taken major steps to decentralize budgets to department heads as described in the **fifth step.** Rather, the new budget information is being discussed with subunit and department heads to familiarize them with these techniques and to prepare them for the time when they will assume more financial responsibility.

Clearly, the task of implementing and maintaining management accounting systems is easier with computerization; however, in many facilities computers are not yet available to the economics unit. City Hospital No. 1 was able to acquire and designate a computer for the economics unit and is taking the first important step, which is to train economists and key financial managers in spreadsheet software so that they can design their own cost accounting, budget and analysis spreadsheets.

Table 8. 1
Global Budget Allocations to Major Subunits in CH1

CH1 Major Subunit	% of 1995 Budget
General Administration	6%
Inpatient Unit	25%
Adult Polyclinic No. 1	21%
Adult Polyclinic No. 2	28%
Child Polyclinic No. 1	9%
Child Polyclinic No. 2	9%
Day-Bed Unit	2%
Family Medicine Ambulatory	2%

Table 8.2 Estimates of Department-Level Budgets in Two Subunits of CH1		
Department	**Adult Polyclinic 2: % of 1995 Budget**	**Inpatient Unit: % of 1995 Budget**
TOTAL	100%	100%
Subunit Administration	13.4%	1%
Clinical Departments		
Internal Medicine	22%	15%
Surgery	9%	21%
Allergy	xx	15%
Ob/Gyn	12%	11%
ENT	1.5%	13%
Ophthalmologist	1.5%	xx
Neurologist	2%	xx
Adolescents	2.5%	xx
Dentistry	2%	xx
Day Inpatient	2%	xx
Rheumatologist	1%	xx
Endoscopist	1%	xx
Infectionist	0.3%	xx
Proctologist	0.5%	xx
Oncologist	0.3%	xx
Dermatologist	0.3%	xx
Cardiologist	0.3%	xx
Army enlistment	2%	xx
Endocrinologist	1%	xx
Paraclinic Departments		
Clinical Lab	4.5%	xx
Bacteriology Lab	5%	xx
Functional Diagnosis	1%	xx
Pre-physician exam	2%	xx
Procedure room	2%	xx
Registration	xx	5%
Physical Therapy	7%	1%
Radiology	2%	1%
Surgical Room	xx	5%
General Laboratory	xx	3%
Laundry	xx	2%
Boilers	xx	2%
Kitchen	xx	2%
Sterilization	xx	2%
Family Medicine network*	4%	xx

* Family Medicine network managed by Adult Polyclinic No. 2

Table 8.3 Example of Cost Allocation Criteria Used at CH1

Budget Article	Method	Comments
1.-2. Wages and Labor tax	Actual staff lists and salaries	Correctly identifying the staff associated with each cost center is a very important aspect of instituting decentralized budgets. Payroll records are generally well kept. Actual figures should be used since labor accounts for a significant portion of department costs.
3. Utilities, phones, water, maintenance, other indirect costs	Allocate total facility budget to each department based on various allocation bases. Some allocations bases used include: square meters, FTE staff, no. of phones, kilos of linen, RVUs.	Article 3 contains many subitems, many of which are small. There is a tendency to want to allocate this article using a great level of precision (for example, allocating each subarticle separately). This is very time-consuming and often does not improve the accuracy of the allocation by very much. A better approach would be to lump several of the subarticles together and allocate the lump sum to departments using one allocation base. In fact, one could use a single allocation base to allocate all of Article 3, such as square meters and generate similar results with less effort.
4. Business trips	Actual amounts	Very limited funds. Often allocated to central administration.
9. Nutrition	Combination of actual amounts and norms allocated for medical departments	Preferable to use actual amounts. Usually not difficult to calculate.
10. Medicines	Combination of actual amounts and norms	Special attention is merited in setting up department-level budgets for this article. It is preferable to use actual amounts. Senior managers may find it helpful to set budget limits for each cost center based on a combination of norms, volume of services and actual budgets available for Article 10. This will help managers allocate scarce medicines fairly and according to health needs, rather than by responding to random requests by head doctors.
12. New equipment	Actual amounts, amortized if necessary.	May be excluded if equipment is not part of the operating budget. Actual amounts in this article may vary from quarter to quarter due to the variation in needs for equipment and major repairs. Methods should be used to determine which of these costs are routine and which are special allocations that require other methods of allocation over time.
14. Linens	Norms based on number of beds or number of staff.	Greatly underfunded
16. Building repair	Actual amounts, amortized in necessary	Same as comments in Article 12.
18. Other	Combination of norms and actual amounts	Includes a wide variety of miscellaneous items to be examined separately, but simplifications used when possible.

Table 8.4 Budget Performance Indicators Under Consideration at CH1	
Type of Indicator	**Sample of Budget Performance Indicators for CH1 departments**
Number of Staff:	# doctors, # nurses, # of health aides, # other staff
Salary per staff:	salary/total staff, salary/doctor, salary/nurse
Productivity:	Productivity index per doctor (=actual intensity points/baseline intensity points), Productivity index per nurse (=actual intensity points/baseline intensity points) Average points per doctor Budget per intensity point per doctor Average points per nurse Budget per intensity point per nurse # Bed-days per doctor (on average and by individual) # Visits per doctor (on average and by individual) # Bed-days per nurse (on average and by individual) # Visits per nurse (on average and by individual)
Volume, capacity	Actual # of bed-days, Number of outpatient visits, Occupancy rate Bed turnover
Other Efficiency	Actual labor cost per bed-day, Actual nutrition cost per bed-day, Actual medicine cost per bed-day. Average Length of Stay Budget per discharge Actual budget per bed-day, Actual budget per visit (outpatient)
Health Outcome	# of Deaths

8.2 Cost Management

Cost accounting can be used for several purposes including (a) setting prices, (b) determining surpluses and losses, (c) assessing the efficiency of service delivery (e.g. departmental performance reporting, labor productivity), and (d) creating budgets for management centers of responsibility. The selection of cost accounting tools depends on how the cost information being collected will be used. At City Hospital No. 1, costing methods were chosen to suit current conditions where user fees recover partial rather than full costs, where City Hospital No. 1 is legally required to set prices for each medical and ancillary service separately (rather than per case), and where intrafacility payments are required to track resources (especially medicines) within the facility. These methods were also used to support budget decentralization calculations.

In the countries of the former Soviet Union, the tradition has been to focus on engineered, planned (or standard) costs. Under new payment methods, it is important that health care facility economists also regularly track actual costs of services. Actual costs per unit of service depend on actual department budgets, the actual volume of services and the actual case mix treated during each period of time. With appropriate cost management, managers can compare estimated standard costs per bed-day with actual costs per bed-day. Similarly, they can compare the standard cost for a treatment or case set through an interfacility payment with the actual costs incurred during a particular month.

Based on the rationale above, the cost management methods being introduced at City Hospital No. 1 emphasize accurate and detailed department procedure-level costing, rather than detailed step-down accounting of overhead and ancillary costs to clinical bed units. It was found that extreme detail in overhead and ancillary department allocations to generate total bed-day costs was of marginal importance and generally less feasible to maintain under a periodic cost accounting system. It was determined that greater benefit could be obtained from a more careful effort to identify operating costs that are directly and indirectly related to a department for the purposes of costing activities or departmental procedures. Overall, the methods use a level a detail that is commensurate with the department's ability to control or influence its costs.

In essence, City Hospital No. 1 lumped together into an overhead budget the various administrative, maintenance, and general support functions, and then allocated the functions to final cost centers, which include both medical and ancillary departments (single step-down). Within each medical and ancillary department, procedure-level costs are being calculated using relative value units (RVU) methods, in which the resources of one procedure, complexity group, or case were measured 'relative' to the others. RVU methods were selected because City Hospital No. 1 economists already had some experience with them, and they can be applied quickly, using as much or as little detail as time and resources allow, yet they generate reliable and accurate results.

It is beyond the scope of this paper to explain the details of RVU costing; only a brief summary of the steps and final results are provided in Box 8.2. There are many variations on how to use RVU costing; for more detail, the reader is referred to Wouters and Else, 1996.[3] City Hospital No. 1 is still exploring RVU applications, so the reader should understand that this discussion explains the first rather than the final stage of the hospital's efforts in this regard.

Box 8.2 Summary of Procedure-level Costing with RVUs

A Method that Reconciles Actual Costs with Actual Budgets

1. *Cost Data:* Actual department expenditures (direct and indirect) for a specified period of time (e.g. every quarter).
2. *Identify cost objects:* Identify major categories of services, procedures, or treatment groups in each department .
3. *Volume of activity:* Determine volume of each category of service for the specified period.
4. *Estimate RVUs*: Ideally, RVUs should be calculated for each category of service for each budget article (or type of resource, e.g. labor, medicines, utilities, equipment). In the absence of computerization , City Hospital No. 1 chose to calculate an overall RVU that reflects all types of resources (combined labor, medicines, etc.) for each category of service. For example, they chose standard ALOS for each surgical complexity group as a reasonable estimate of relative amounts of all resources for the different surgical cases. This is appropriate as a first approximation, but the calculations should soon be expanded to develop RVUs for each type of resource.
5. *Calculate adjusted volume of activity:* Convert the actual volume of services to standardized units of service by multiplying actual volume by the RVU weight for each category of service.
6. *Calculate cost per standard unit of service:* Divide departmental actual expenditures by total number of adjusted volume units.
7. *Calculate actual unit costs:* Calculate the actual cost for each service by multiplying the cost per standard unit of service by the RVU for the category of service.
8. *Calculate departmental budget allocated to each category of service:* Multiply actual unit costs (step 7) by actual volume for each category of service.
9. *Reconcile costs and budgets:* The sum of total actual costs spent on each service should equal the total actual budget. RVU methods, by definition, reconcile actual costs to actual budgets.

The initial experience at City Hospital No. 1 showed that most of the inpatient departments had a manageable list of complexity/case groups that could be used to classify the types of treatments provided in medical departments. In the FSU system, complexity groups classify patients according to similar diagnoses, with further break-downs made according to average length of stay. On the outpatient side, statistics were weaker in terms of describing the types of visits made. Consequently, the economists had

[3] Wouters, A. and Else, B. *Implementing Management Accounting and Control Reforms in the NIS: A Manual for Health Care Organizations.* April 1996. USAID Zdrav*Reform* Project, Abt Associates, Bethesda, MD.

to rely on medical staff judgments to determine RVUs rather than on some objective measure. In the case of ancillary tests, however, information was often available on groups of procedures within a department classified according to the length of time required to conduct each procedure.

Chart 8.1 gives examples of draft estimates of actual unit costs for 16 complexity groups for City Hospital No. 1's inpatient surgery department for July through September 1995. [Note: because these results are not final, complexity groups are labeled with numbers rather than with the names of specific case types.] The variations in actual unit costs over the three-month period show that actual costs can vary widely from a fixed standard cost. Changes in actual costs can be caused by changes in departmental budgets, volume of service, productivity, resource costs, and case mix that occur from month to month. If managers had this actual cost information in addition to additional measures of service statistics and input cost information, they would be in a good position to track and explain differences in actual costs and efficiency each month. For example, one might explain higher costs in July and August than in September by the lower volume of services during summer months.

insert Chart 8.1

[file surgcst.xls]

9.0 SALARY INCENTIVES

The salary incentive program was implemented at City Hospital No. 1 some time in 1994 and was adapted from a similar salary incentive program in St. Petersburg. Its main objectives were to increase staff productivity, to stimulate improvements in quality of care, and to encourage use of cost-effective services. These objectives were built into the salary incentive system through an intensity point system which gave higher value to tasks which met these objectives.

In particular, a system of points was developed which reflects the intensity of work performed by physicians and nurses. Salary bonuses are awarded based on intensity points earned above a standard number of points required every month. These intensity points were developed by each work team, of which there are 30. The health workers on a particular team (e.g. surgery department) identified the major tasks they perform and then assigned points to each task based on a qualitative assessment of the complexity or intensity of the task. The 'intensity' of each task is loosely defined, probably reflecting both amount of labor time, difficulty of task, etc.. Points are assigned not only for rendering care, but also for completing medical charts, or other administrative tasks. Points are subtracted for items such as neglecting to do a very standard test, keeping incomplete records, showing up late to work, and so on. Points for each task can be adjusted if the department head or chief doctor feels that more attention should be paid to one type of service/task over another. For example, more points can be assigned to immunizations or home visits even though this service is less intensive if the hospital is trying to improve its immunization rate or home outreach. The chief doctor of the hospital has signed a contract with each work team which states the system of intensity points.

When it was first introduced, the salary incentive program was met with strong resistance because it challenged physicians and other health workers to improve their performance, but the staff soon adjusted to it, now willingly accept it, and are concerned that future budget constraints may eliminate it.

In addition to the system of intensity points, the salary incentive program is composed of the following elements:

Bonus fund: A portion of the salary fund in almost every department is set aside to distribute as bonuses. Bonus funds are department-specific; that is, only some departments are able to set aside funds for this program.

Criteria for salary bonuses: The amount of bonus depends on three factors: (a) District health indicators established and monitored by City Hospital No. 1. If the district health indicators are poor, the chief doctor may withhold salary bonuses for the month. This has happened. (b) Intensity points earned by each staff member (see item '3' below); and (c) individual work team criteria. Each team has its own model of final results and standards of quality.

Work team: Teams generally follow departmental lines. In the case of ENT, the work team consists of both inpatient and outpatient staff. Teams usually consist of the same level of health worker (e.g. doctors only, nurses only, health aides only).

Calculating bonuses: Health workers keep their own records of how many points they earn each month. The head of the department prepares the final summary of points by staff member. Each department does its own policing to sort out how many intensity points are earned by each staff person. A somewhat complicated formula is used to calculate how much bonus money is earned. The formula takes into account three elements: (a) a fixed bonus pool to be allocated; (b) a minimum number of intensity points that must be earned by each person; and (c) staff cannot legally receive bonuses above 75 percent of their base salary. Heads of work teams submit their list of bonus points and salary bonus amounts to the chief economist for approval each month. The chief doctor's approval is sought when something seems out of line.

As a result of incentive systems, senior management has observed an increase in productivity; however, this improvement is limited by the small bonus funds available. Nevertheless, this is a first real attempt to link payment to productivity and seems to have created good incentives.

10.0 USER FEES

As stated in the introduction to this document, City Hospital No. 1 received a special waiver to implement user fees. Senior management realized that even under a new global budget system, budgets would be insufficient to cover all the costs of services. This point was discussed in section 4 and illustrated in Chart 4.2. In addition, City Hospital No. 1 management realized that user fees can achieve multiple goals that reinforce the benefits of global budgeting. Specifically:

- User fees can generate funds that can be reinvested in the health facility to improve quality, buy equipment and supplies. Doctors need good facility conditions to do their work and patients benefit from improved quality of care.
- The structure of user fees (where fees are highest at hospitals, then polyclinics, and lowest at outpatient primary health care ambulatories) can improve efficiency of the health care system by encouraging patients to seek more care at the primary health care level and go to higher-level facilities when referred by a primary health care physician.
- User fees stimulate productivity of physicians and other health staff by providing bonuses to those who provide quality and high volume of services.
- User fees can improve health care for the poor when mechanisms are put in place to provide exemptions for those who are really too poor to pay. When quality of care improves through reinvested user fee revenues, all patients benefit.

- User fees can encourage patients to assume more responsibility for their own health. If patients pay part of the cost of their health care treatment, they will reduce requests for services that are really unnecessary.

From 1993 until October 1995, when City Hospital No. 1 first implemented its user fee system in Adult Polyclinic No. 2, the hospital's main source of non-budget funding had been contracts with enterprises to provide annual medical check-ups to employees in hazardous occupations. This source of funding accounted for about three percent of the facility's revenues in 1993 and less than one percent in 1994. Due to difficult economic conditions, however, enterprises are increasingly defaulting on their payment obligations to the hospital. Experience in other sites, such as Odessa, shows that user fees can provide a sustainable source of income that can be used to diversify the source of private payments.

The user fee program has been implemented in stages beginning with five departments in Adult Polyclinic No. 2. About 50 services were covered in the departments of gynecology, clinical laboratory, bacteriology laboratory, radiology, and thermal diagnostic screening. By July 1996, the user fee program expanded to include 15 departments in two polyclinics and the inpatient unit. About 51 percent of revenues earned are used to pay various taxes, and about 26 percent is used for salary bonuses, leaving 22 percent for facility expenses such as paying for medicines and supplies.

In the paragraphs below, a brief summary of City Hospital No. 1's experience in implementing user fees is given, while also attempting to distill the basic steps other facilities might follow as they pursue similar reforms.

Box 10.1 Implementing User Fees: Some Basic Steps

I. LEGAL FRAMEWORK (pre-July 1996)

A. Legal Framework for Providing User Fees for Cash

1. Adopt the Statute at the general meeting of the facility.
2. The Statute of the facility should be confirmed by the Head of the Oblast Health Administration.
3. The Oblast Health Administration should issue a decree on the grounds of Basic Law on Health Care for Ukraine (Article 18).
4. Register the Statute at the Rayon Administration where the facility is located.
5. Receive a State Registration of a Business Certificate.
6. Register at the Oblast Statute Department.
7. Create a price list of services that are to be provided and coordinate it with the Oblast Health Administration. (Ministry of Health of Ukraine #10.01.04/503 dated 7.05.96)
8. Register at the Finance Department of the Rayon Administration and receive a cash book.

B. Legal Framework for Providing User Fees for Enterprises

1. Settle an agreement with enterprise on the types of medical services to be delivered.
2. Create a price list of provided services and coordinate it with the Oblast Health Administration. (Ministry of Health of Ukraine #10.01.04/503 dated 7.05.96)

In L'viv City, City Hospital No. 1 pioneered much of the process for understanding and identifying the legal steps necessary for being allowed to implement user fees. The suggested steps are listed in Box 10.1 above and pertain specifically to the conditions of L'viv city and L'viv Oblast. Health managers should update and confirm the necessary steps with the appropriate officials. Preparing and authorizing the legal documentation proved to be a time-consuming and lengthy process.

Box 10.2 Implementing User Fees: Some Basic Steps

II. IDENTIFY LIST OF SERVICES TO BE CHARGED

1. Select services outside of the minimum health package.
2. Discuss with physicians to understand which services are demanded by patients and could have fees associated with them. Observe what other facilities are charging.
3. Set policies for charging patients who come from outside of the rayon, or who are foreigners (e.g. truckers, tourists, etc.)
4. Establish an exemption policy for those patients who cannot or should not pay.

Among the steps listed in Box 10.2 above, senior management of City Hospital No. 1 depended heavily on the opinions of its professional health staff to determine which services should be included in the user fee program. Senior management also carefully reviewed the L'viv Oblast decree outlining the minimum health care package to select

those services outside the package. The hospital complex also attracts a substantial number of patients from neighboring districts who know about the high quality of certain services at City Hospital No. 1.

Periodically, the hospital tests patient willingness to pay for health care services as part of their patient satisfaction surveys. For example, in a recent patient satisfaction survey for the family medicine ambulatory and the Adult Polyclinic, results indicated that a majority of the patients want to receive additional health services on a user fee basis. In particular, 54 percent of family medicine ambulatory patients, 60 percent of internist patients, and 74 percent of pediatric patients expressed willingness to pay for services such as massages, urgent tests, functional diagnostics, physiological procedures, and additional injections.

In addition, it is well known that a system of informal private payments for health services exists throughout Ukraine. In particular, a survey of private providers in L'viv City estimated that private out-of-pocket payments to physicians working in L'viv City total in excess of $2.4 million annually[4]. Although a portion of this sum is paid to officially licensed private health care providers, the bulk consists of informal payments to state physicians. In creating a formal system of user fees, the hospital is attempting to tap and structure user fees to achieve goals listed above. Quality and access to health care would improve if these private payments could be reinvested in the health care facility, including financial incentives for health staff.

Although many patients can and will pay, there are some who cannot afford to pay. Senior management should establish procedures for reviewing these cases, including who will give permission for these exemptions or discounts, what criteria will be used to determine who is exempt, and what source of revenue will be used to pay for these cases (e.g. government budget or surplus user fee revenues). International experience suggests that exemptions should be about 10 percent or less of patients if the user fee system is to be financially sound.

[4] Hauslohner and Burgess, 1996.

Box 10.3 Implementing User Fees: Some Basic Steps

III. COST CALCULATIONS

1. Calculate department-level actual budgets for the health facility.
2. Identify those departments that will have user fees.
3. For each department, state the amount for each budget article.
4. List the complete services provided by the department, in categories, and the volume for each category.
5. Estimate relative value units for labor based on minutes to conduct each category of service. Calculate the unit costs based on these RVUs.
6. Estimate relative value units for non-labor articles (separately by article or lumping some articles together), except medicines and supplies, especially if the budget is underfunded. Calculate the unit costs based on these RVUs.
7. Calculate the costs of medicines and supplies for category of procedure. Since this budget article was seriously underfunded and difficult to identify by department, microcosting rather than RVU costing was used to estimate unit costs for this resource.
8. Calculate the total cost and price of each category of service by adding the amounts in steps, 5, 6, 7.

In all calculations, the greatest effort should be placed on costing the 20 percent of services and resources that account for 80 percent of the costs. Some costs are so small that rough estimates are sufficient.

Prices for each of the individual services were approved by the City Health Administration and were set uniformly for all major subunits in the City Hospital No. 1 complex. Prices were based on costing guidelines established by the City Health Administration, including department-level costs covering the usual set of operating budget articles for labor, utilities, capital repair, medicines and linens. A fixed percentage (based on the portion of total costs attributable to general administration and overhead) was added for overhead administrative costs. Capital depreciation was not included.

For outpatient visits, an average cost per visit was calculated. In the case of laboratory or other diagnostic tests, procedures were grouped into categories for each department according to the labor time required to conduct the procedure. RVUs based on these standard labor times were then used to calculate procedure-level costs for each major group of procedures. Patients pay according to the cost price established for each of the 50 items on the official price list, plus a 20 percent VAT tax. Since cost calculations were done almost four years ago and have been occasionally updated for inflation, prices appear to be considerably below the actual costs of services. Although, from an economic point of view, this is not desirable in the long run, in the short term this is acceptable as patients adapt to paying fees during difficult economic conditions. When prices are set below cost, a basic economic principle should always be kept in mind, namely, that prices cover at least the variable costs, such as medicines and supplies. City Hospital No. 1 economists are following this principle by doing fairly detailed costing of

medicines and supplies using computer spreadsheets that list these items for each procedure including quantities, unit costs, and cost per procedure.

City Hospital No. 1's basic technique of calculating prices based on department-level operating costs plus an overhead rate is sound. The list of steps given in Box 10.3 represents a more thorough application of the cost methods to each budget article, but is basically consistent with the legal costing framework currently in use. Most importantly, as the hospital's economics department become computerized, it will be possible to update and revise all procedure cost estimates to ensure that prices are closely linked with actual current costs. This becomes important as the hospital implements other health care reforms that will likely affect the cost of services. Cost and RVU standards set by Moscow many years ago will no longer be accurate. City Hospital No. 1 may be able to improve its competitive position by updating prices regularly to reflect its progress in health care reform.

Box 10.4 Implementing User Fees: Some Basic Steps

IV. USE OF REVENUES

1. Pay tax requirements (VAT, salary tax, community tax, road tax, social security, innovation fund, profit tax)
2. Deduct amount needed to replenish medicines and disposable supplies to ensure that stocks are replenished.
3. Establish policy for use of remaining funds. Two main goals should be (1) to provide physicians with bonuses based on volume and quality of services, but that will not exhaust all user fee revenues, and (2) to re-invest some of the funds to improve the quality of services of the departments that are charging fees.

Under current and future budget constraints, user fee revenues will become more important as a source of partial cost recovery. This means that managers should clearly establish policies on how revenues from user fees are to be used. As shown in Box 10.4, in terms of priority for allocation of revenues, tax payments naturally come first, followed by restocking variable inputs such as medicines and supplies. Only after this should revenues be distributed to cover other personnel and non-personnel costs. From these remaining funds, it is particularly important to distribute significant portions of the revenues to improve the quality of services in the departments charging user fees. In the long run, patients will only continue to pay for services if they feel that they are getting value for their money. Senior management should strategically direct revenues to build and sustain self-financing centers. City Hospital No. 1 follows this basic principle by using the revenues remaining, after taxes and after payments for restocking medicines and supplies, to pay salary bonuses and other needs. This policy is formally declared in a contract with each department.

Box 10.5 Implementing User Fees - Some Basic Steps

V. USER FEE PERSONNEL

1. Identify economist and accountant responsible for calculating and managing costs, prices, and revenues.
2. Identify accountant to maintain accounts for revenues and bank accounts.
3. Identify cashier for each facility who collects user fees.

VI. ESTABLISH SYSTEM OF INTERNAL CONTROL

Follow existing legal framework for cashier machine and official receipts. Establish system of handling cash, with three recommendations:

1. The person who authorizes the procedure should be different from the person who collects the cash.
2. The list of authorized procedures should be compared to the amount of cash collected. The manager should do this with two other nurses present.
3. Cash deposits should be made to the bank daily, with the signature of at least two persons on the slip.

The experience of City Hospital No. 1 shows that implementing a user fee system requires substantial personnel effort. They created a position for the Director of User Fees, who works under the guidance of the Chief Economist. Cashiers have also been trained. Recommendations for personnel requirements and systems of internal control are given in Box 10.5.

Box 10.6 Implementing User Fees - Some Basic Steps

VII. ESTABLISH INFORMATION SYSTEM TO MONITOR USER FEE PROGRAM

1. Create a form that records the following types of information for each patient (this may be used only for paying patients, but eventually this information should be collected for every patient).
   -patient name (or initials and date of birth),
   -treating physician (and referring physician if desired),
   -receipt number (if fees paid),
   -department where service provided,
   -date of service,
   -procedure code,
   -amount of payment for each service,
   -total payment,
   -diagnosis code.

1. On a monthly and quarterly basis, monitor the progress of the user fee system by conducting various analyses with the patient records. Examples of items included in management reports might include:
   - user fee revenues earned by each department;
   - total funds received by department (from all sources including public budget)
   - expenditures incurred by department;
   - volume of total and each type of procedure/treatment by department
   - volume of total and each type of procedure/treatment by treating physician or other health staff;
   - revenues earned from procedures, from patient visits by each physician or other health staff;
   - % of total revenues earned by each physician;
   - % of total revenues earned for each procedure;
   - revenues earned per procedure and average income earned per procedure;
   - surplus/loss income statement for each department;
   - projected revenues, actual revenues, divergence in revenues;
   - projected volume, actual volume, divergence in volume.

There are many components to setting up a computerized information system in a hospital. The basic ones are:

- Accounting
- Practice Management :
  - patient profiles: age, diagnosis, procedure, service, home address, payer;
  - physician productivity reports;
  - referral profiles (patients and physicians);
  - inventory control;
  - financial planning, practice analysis;
  - business projections;
  - analysis and correlation of patient data;

- linking satellite facilities.

- Patient scheduling and follow-up
- Clinical applications:
  - access to national data banks;
  - continuing medical education programs;
  - drug interaction and allergy checks;
  - medical records.
- Word Processing for reports, letters

The introduction of user fees has precipitated the need for computer capability in practice management software. The first step in this regard was to introduce a manual paper record system that collected most of the information listed in Box 10.6 above for every patient. City Hospital No. 1 experimented with a notebook that collects this information with pages set up with columns for each data item and one line for each patient. Although this system works well in a small user fee program, it quickly becomes inadequate as the system of user fees expands. Cashiers and economists should be encouraged to work with a more enhanced and standardized form that can be modified for any department (e.g. with codes for departments and lists/codes for procedures) and where each patient gets one-third to a full page. A computer programmer was hired to create a database software program for the economics unit so that this data could easily be entered and regularly analyzed using standard reports tailored to the hospital.

Box 10.7 Implementing User Fees - Some Basic Steps

VIII. FIND LOW-COST WAYS TO ENSURE AND IMPROVE THE QUALITY OF SERVICES

Patients are more willing to pay for services when they know quality of care is good, health staff are friendly, and the clinic atmosphere is clean and pleasant.

1. Hold special training sessions for health staff on how to make patients' visits more pleasant.
2. Ensure cleanliness and pleasant atmosphere of rooms.
3. Introduce special features such as shorter waiting times, extra privacy, or other small things desired by patients.
4. Make sure the cashier is friendly, patient, and well-organized with price lists and receipts.
5. Conduct a patient satisfaction survey periodically. Survey at least 100 patients in each round.

IX. INFORM THE POPULATION OF USER FEES

1. Advertise the prices and services available at your facility and assure your patients that you are interested in high-quality care and patient satisfaction.
2. Post price list for patients to see when they enter the facility.
3. Inform patients of exemption rules at the beginning of their visit. Specify what discounts are available for those patients who are unable to pay.

Building patient satisfaction is important if the medical practice is to succeed in a competitive market where patients have a choice of provider. If you dissatisfy one patient, you might not only lose the patient but also his/her entire family. If you dissatisfy one employee patient, you might not only lose the employee, but also the entire enterprise contract.

Managers should be proactive in their attempts to increase patient satisfaction. Small improvements in patient relationships can go a long way. Examples of what health professionals can do to make these improvements are summarized in Box 10.7 and could further include: acknowledging a patient immediately upon arrival; explaining all lengthy delays in service; arriving punctually to work; providing educational materials or information to patients; asking about the patient's family; having the patient spend adequate time with each physician; creating a pleasant atmosphere in the reception room; expressing respect, patience and understanding; wearing identification tags; respecting patient privacy by knocking on the door before entering the examining room; and keeping equipment clean and in good condition. City Hospital No. 1 has instituted several of these measures to demonstrate their motto "Patient First". In some of the departments where user fees are required, there is a noticeable effort to improve patient relations.

Patients will often have misconceptions or wrong information about the new user fee policies of the health facility. This often generates patient dissatisfaction and may even deter patients from coming to the health facility. If user fee policies are being introduced, patients deserve to be fully informed about what they will pay and whether any possibility of exemptions exists for those patients who are simply unable to pay. User fee prices should be clearly posted at the entrance to the facility.

Managers may also consider different advertisements that include information on items such as:

- types of services provided,
- special qualifications of health staff,
- extended hours of service, if any,
- motto of facility, e.g. 'Patient First'
- user fee policies,
- possibilities of home visits or setting up appointments.

11.0 IMPACTS

Although it is too early to see the full impact of these reforms on the health service and health outcomes indicators of City Hospital No. 1, trends in performance for the 1992-1995 period and the first six months of 1996 are presented in Table 11.1. Budget information is given in Table 11.2. The efficiency of inpatient services appears to be improving. The inpatient unit of the hospital is being used closer to full capacity with

an occupancy rate of 100 percent in 1996 in comparison with only 74 percent in 1992. At the same time, ALOS has fallen from 15.1 days in 1992 to 12.2 days in 1996. In comparison, the city-wide ALOS for L'viv is 15.4 days.

There does not appear to be any substantial change in outpatient service indicators, but in the polyclinic department of surgery there previously had been only nine categories of surgeries performed on an outpatient basis, and it has now increased to 13. Immunization rates have improved from 85 percent in 1993 to 100 percent in 1996.

User fee revenue still comprises only 1 percent of the budget, but has increased substantially in absolute terms. Revenues from user fees have also permitted participating health staff to receive salary bonuses and some departments to purchase small pieces of equipment.

Table 11.1 CH1: Basic Service Utilization Statistics, 1992 - 1996					
Indicator	**1992**	**1993**	**1994**	**1995**	**1996 ***
Inpatient Statistics					
Beds	360	292	290	240	240
# bed days	118,456	108,310	102,490	92,907	41,038
Occupancy rate	73.93	99.91	94.44	103.1	100.5
Discharges	7,787	7,390	7,841	7,450	3,343
ALOS	15.1	15.2	13	12.4	12.2
Polyclinic visits					
Total visits	1,106,756	1,162,962	1,077,554	1,094,000	466,957
Adult visits	601,451	570,359	528,575	765,689	222,820
Child visits	157,683	165,809	163,696	328,799	175,469
Home visits	88,722	104,838	92,228	107,975	68,488
# outpatient surgery	--	--	2,197	2,712	1,015
Vaccination rate (DPT)	--	85%	95%	100%	100%
Mortality Rate	0.6	0.47	0.30	0.30	0.30

* January - June 1996 only

Table 11.2 CH1: Sources of Funds, 1992 - 1996 (Koupons)					
Source of Funds	**1992**	**1993**	**1994**	**1995**	**1996***
Actual Public Budget	125,558,000 (100%)	3,289,675,600 (96%)	39,154,055,000 (99%)	232,000,000,000 (100%)	126,766,500,000 (96%)
User Fees**	106,000 (0.8%)	119,115,700 (3.5%)	239,471,500 (0.61%)	223,795,000 (0.1%)	1,856,563,000 (1%)
humanitarian	0 (0%)	22,094,100 (0.64%)	106,616,000 (0.27%)	negligible	negligible
TOTAL	125,664,200	3,430,885,400	39,500,143,000	232,223,795,000	128,623,063,000

* January - June 1996 only
**includes contracts with enterprises

12.0 CONCLUSIONS

Preparing a hospital for global budgeting is clearly not just an issue of calculating a new base budget based on demographic characteristics. Setting the base payment is an important first step, but it must be followed by other policy components including: (a) establishing complementary systems of interfacility payments, (b) allowing health facilities greater management and financial autonomy, (c) setting up safeguards to prevent or deal with cost shifting, and (d) putting in place a set of performance indicators to monitor how well resources are being used to promote efficiency, while maintaining access and acceptable quality of care, and to identify when global budgets need to be adjusted for extenuating circumstances (e.g. dramatic changes in volume or case mix).

New payment methods, such as global budgeting, set off a chain reaction of multi-dimensional reforms as health managers face new financial incentives and risks that hopefully lead them to improve efficiency and quality. To respond, health managers need

more financial and management autonomy to restructure their systems to achieve these goals. Within the existing legal framework, City Hospital No. 1 managers identified seven areas of reforms that they felt were essential to implement in order to cope with the requirements of the 1992 Basic Health Care Law, including: (1) strategic planning and restructuring, (2) expansion of outpatient services, (3) quality improvement through clinical protocols, (4) implementation of management accounting systems, (5) salary incentives to stimulate productivity, (6) closer coordination of inpatient and outpatient services, and finally (7) establishment of user fees to supplement low public budgets and enhance incentives for improved efficiency, quality, and access.

Given the comprehensiveness and complexity of these reforms, it has clearly been worthwhile to begin their design and implementation while waiting for the implementation of global budgeting or other components of the 1992 Basic Health Care Law. It takes time for attitudes to change and new methods to be adapted and adopted. City Hospital No. 1 took the first steps in reform in 1994 by obtaining the status of a independent legal entity and launching the salary incentive program. Although the reforms are still at an early stage of implementation, performance indicators seem to suggest that efforts in these seven reform components are proving worthwhile.

Unfortunately, progress has been slowed by the lack of a national policy direction and clear legal framework on many related issues, by economic instability, by the reluctance by health authorities to grant more management and financial autonomy to health facility managers, by the challenges of changing attitudes among health professionals, and by the time constraints faced by enthusiastic health and management staff who have had to continue with old obligations while designing, testing, and implementing new reforms.

Computerization would probably have speeded up the introduction of some of the reforms, but without a thorough understanding of concepts and methods, rapid computerization could also have led to overly complicated and even incorrect solutions. Managers had to realize that computers are not the solution, but rather a way to facilitate implementation of the creative but solid methods of health care management.

Nevertheless, opportunities were found within the existing conditions to begin reform. Most progress has been made in expansion of outpatient family medicine services, clinical protocols, management accounting systems, salary incentives, and user fees. Changes in strategic planning and management restructuring have proven to be the most difficult, perhaps because a legal framework granting more management autonomy does not yet exist, and perhaps because mid-level managers are not yet accustomed and trained to take on new responsibilities. Progress in other reform components has clearly been facilitated by the presence of an adequate legal framework, support from oblast and city health officials, the decision by the chief doctor to make strategic reforms, and the availability and willingness of health staff to persist in spite of often substantial start-up obstacles.

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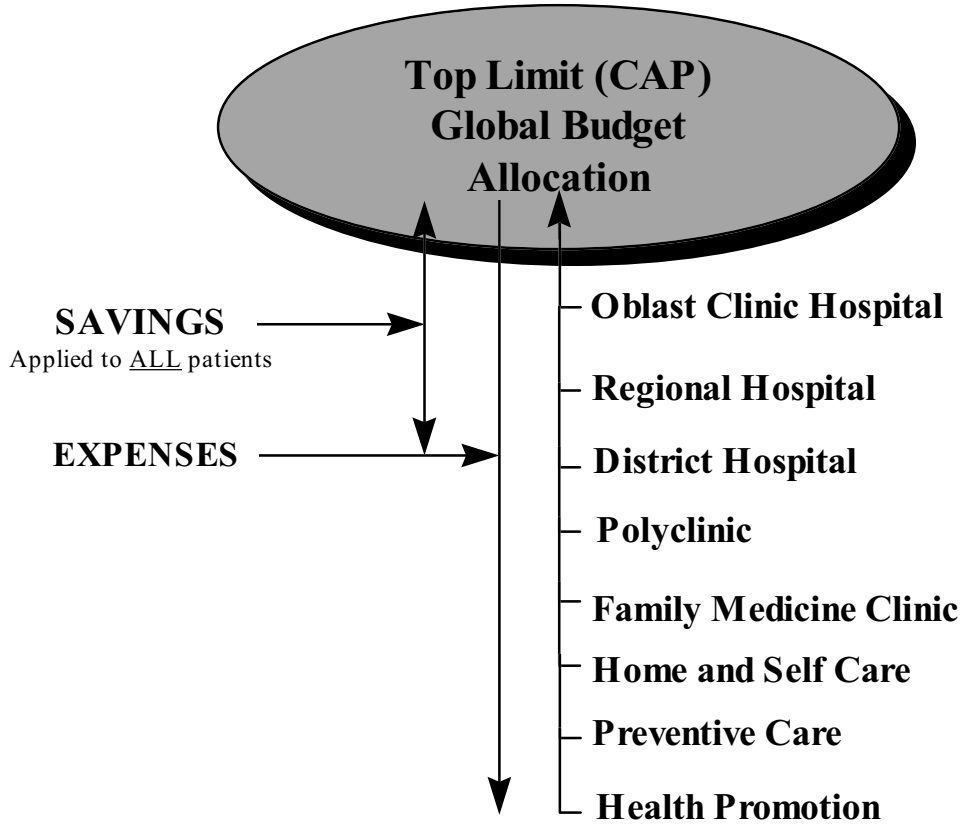
Strategic Thinking

CHART 4.2.1

New Global Payment System Methodology

Prospective
Guarantee / Year
Per-Capita/Case Allocation
with Savings Incentive



HEALTH CARE COSTS

Hrevna

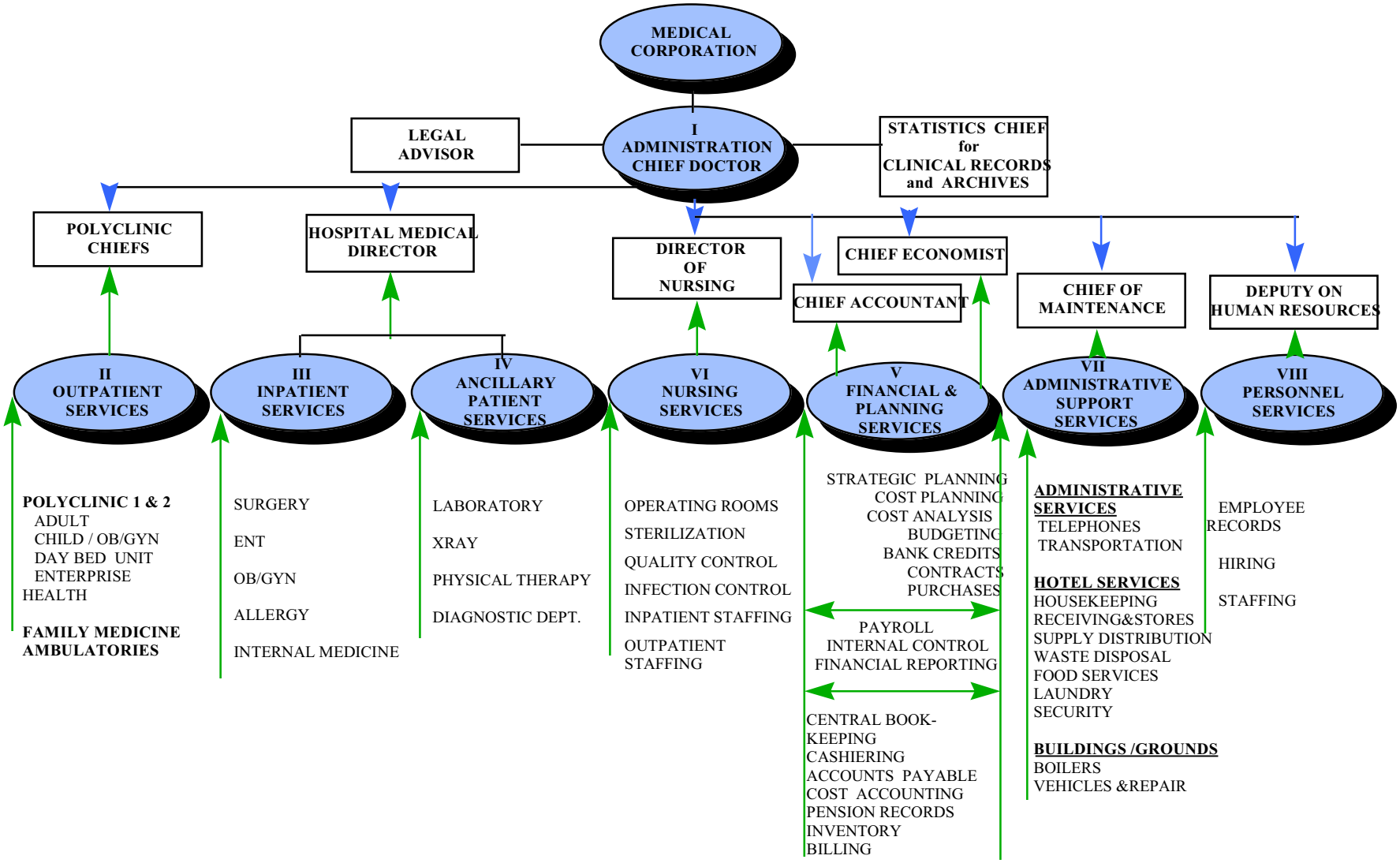
Hrevna

Hrevna

Revised October 1, 1996

Chart 4.4

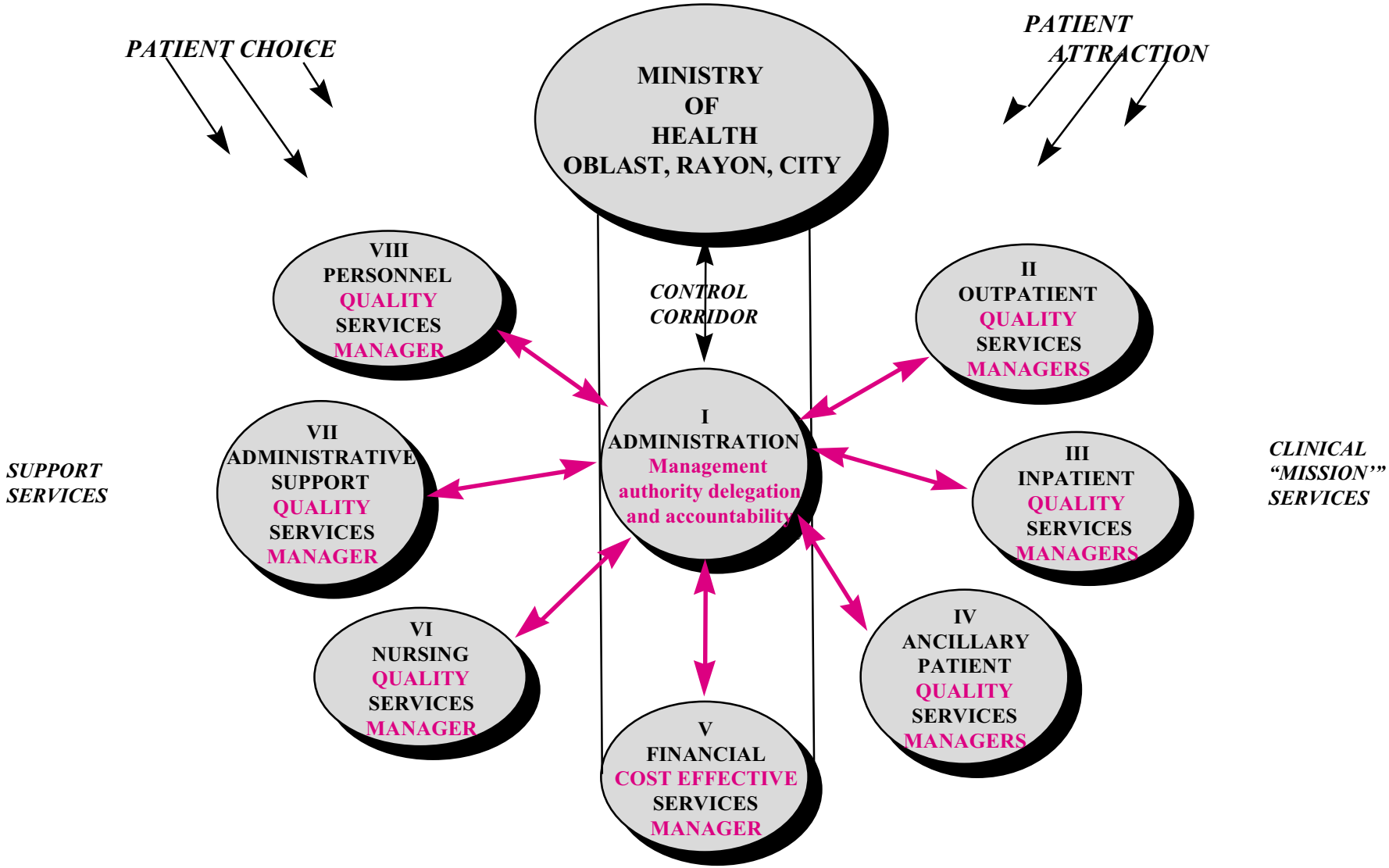
Lviv City Hospital Number One
Chart of Communication , Authority Delegation and Accountability



Revised November 30, 1995

HOSPITAL AND POLYCLINIC
STRATEGIC PLANNING PROCESS
INTERNAL ENVIRONMENTAL ASSESSMENT CHART

CHART 4.5

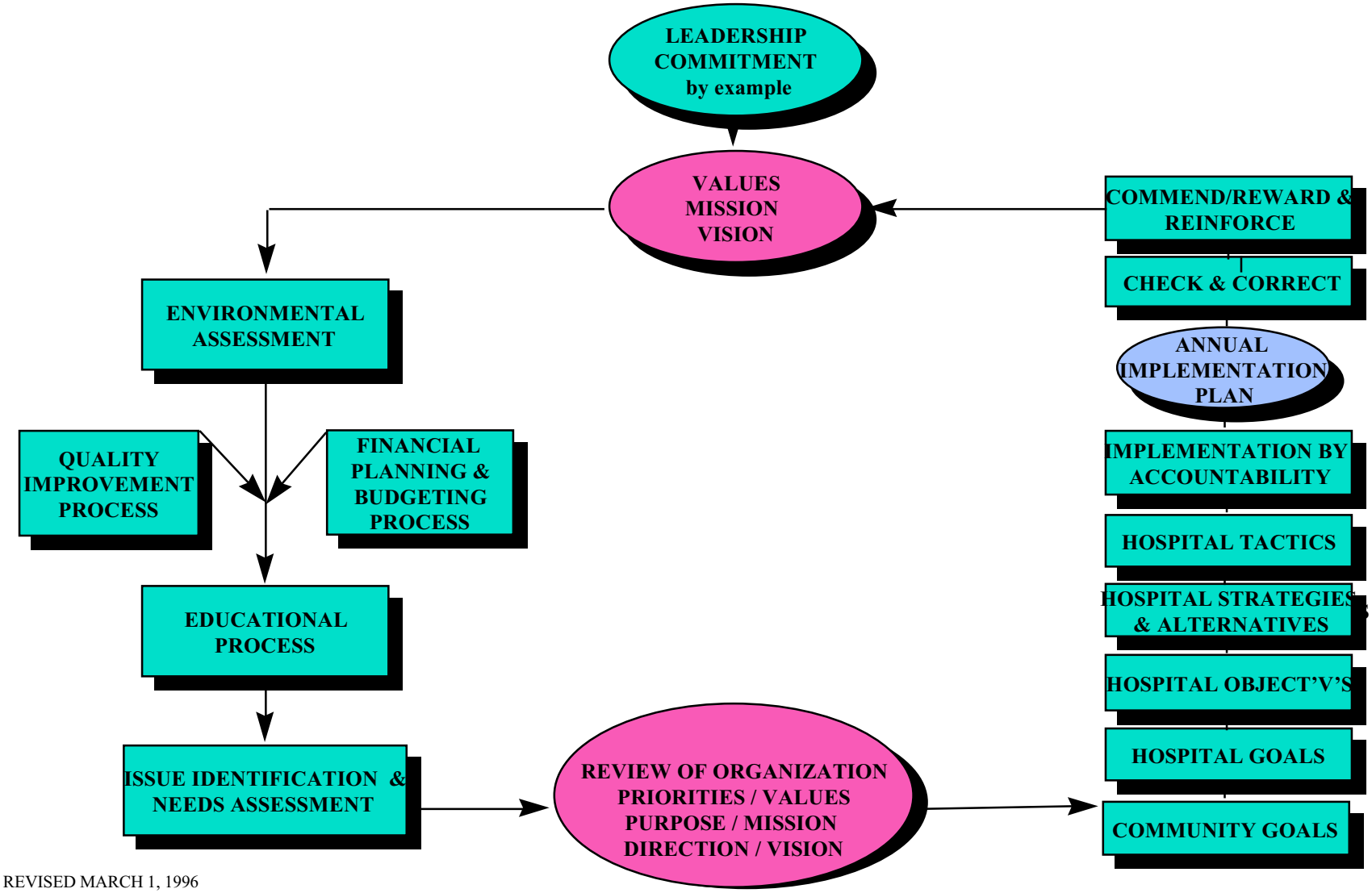


Revised March 1, 1996

HOSPITAL / POLYCLINIC
HEALTH CARE REFORM STRATEGIC THINKING PROCESS

Strategic Thinking

CHART 4.6



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